MULTIPLE ORGAN FAILURE AFTER CARDIOPULMONARY BYPASS

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Most of the patients in intensive care units (ICU) die as a result of multiple organ failure (MOF). MOF has been observed in a variety of clinical situations that initiate systemic inflammatory response syndrome (SIRS) ending in MOF. SIRS can be initiated by sepsis, burns, multiple trauma, massive blood transfusion, acute pancreatitis and cardiopulmonary bypass during cardiac surgeries. The cases of MOF which occurred postoperatively following heart surgery were thought to be only due to low cardiac output syndrome (LOS). Cardiopulmonary by pass by itself can initiate SIRS even in the absence of LOS. Proposed mechanism is that MOF is due to generalized inflammatory reaction with activation of leucocyte and release of cell mediators cytokines as tumor necrotizing factor and interleukines. CPB may release these cytokines which play an essential role in MOF. There is a significant correlation between CBP duration and the development of MOF. It is very important to reduce the time of the CPB as much as possible in an effort to minimize the incidence of MOF after CPB.

References: